NOTES ON THIS MANUAL

Keep these instructions with your computer at all times. The proper set up, use and care can help extend the life of your computer. In the event that you transfer ownership of this computer, please provide these instructions to the new owner.

This manual is divided into sections to help you locate the information you require. Along with the Table of Contents at the beginning of this manual, an Index has been provided to help you find topical information.

If you want to start up your PC immediately, please read the chapters **Operational Safety** (page 3) and **Setting up and Getting Started** (page 11).

We strongly recommend you read this entire manual to ensure the proper set-up and operation of your PC.

Many application programs incorporate extensive help functions. As a general rule, you can access help functions by pressing F1 on the keyboard. These help functions will be available to you while you are using the Microsoft Windows® operating system or the respective application program.

We strongly recommend that you read the Online Manual for your PC, which can be found in the **Start Menu**.

 **Information about your PC**

This interactive manual is designed to provide additional information about your PC as well as useful links accessible via the World Wide Web.

Windows^{xp} invites you to a **tour** (notes on the task bar) to familiarize yourself with the operating system. We listed further useful sources of information starting on page 64.

AUDIENCE

These instructions are intended for both the novice and advanced user. Regardless of the possible professional utilization, this PC is designed for day-to-day household use. The functions and applications for use with this PC have been designed with the entire family in mind.

PURCHASE DETAILS

Enter your purchase details below for quick reference.

Serial Number .....

Date of Purchase .....

Place of Purchase .....

You will find the PC serial number on the Service Hotline card. The serial number also appears on the rear of the PC.

QUALITY

Medion has selected the components in this computer for their high level of functionality, ease of use, safety and reliability.

Through balanced hardware and software design we are able to provide you with an innovative personal computer useful for applications relating to both work and leisure.

We are pleased to welcome you as our newest customer.
Thank you for choosing our products.

Table of Contents

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Table of Contents (continued)

Chapter 1

Safety and Maintenance

Subject **Page**

OPERATIONAL SAFETY

Please read this chapter carefully and observe all listed notes. This ensures a reliable operation and long life expectancy of your PC.

- **DO NOT allow children to play unattended with electrical equipment.**
- **DO NOT open the PC casing or use the PC with the casing removed**. When the casing is open there is a **danger to life** from electric shock.
- **DO NOT insert objects through the slots and openings of the PC.** This may lead to electric shock or an electrical short-circuit or fire that will damage your PC.
- Connect the PC **ONLY** to an **earthed**, easy accessible **power socket**. For disconnecting the PC from the mains, unplug the power cord from the mains socket.

- **DO NOT cover the slots and openings in the PC casing.** These openings are for ventilation purposes. Covering these vents may lead to overheating.
- **This PC is NOT designed for use within industrial environments.**

- CD-ROM-/CDRW-/DVD-drives are **Laser Class 1** devices. These lasers **must** remain in their sealed PC casing. **DO NOT remove the drive covers, as exposure to the lasers may prove harmful.**
- **DO NOT look directly into the laser, even when wearing eye protection.**

For U.S. / Canadian purposes:

Danger — Invisible laser radiation when open. Avoid direct exposure to beam.

Danger — radiations invisibles du laser en cas d'ouverture. Eviter toute exposition directe au faisceau.

This product is certified by the manufacturer to comply with DHHS rules 21CFR, Chapter 1, Subchapter J, applicable at date of manufacturer. Refer to optical drive labels for additional details.

Please contact **Customer Service** when:

- ... the **power cord or** the attached **plug is worn** or damaged. Have the defective power cord replaced with an original cable. Never try to repair a defective cable.
- ... the **housing** of the PC **is damaged** or **liquids have penetrated**. Have the PC checked by Customer Service first. Otherwise it is possible the PC cannot be operated safely which might cause danger to life by electric shock! The power cord is worn or damaged.

DATA SECURITY

Every time you update your data make back-up copies on an external storage medium. The supplier does not assume liability for data loss or damage to data storage units, and no claims can be accepted for damages resulting from the loss of data or consequential losses.

IMPORTANT ADDITIONAL SAFETY INSTRUCTIONS

When using any electronic equipment, basic safety precautions should always be taken. Following the guidelines below can reduce the risk of fire, electric shock and injury to person:

- Do not use this product near water (e.g., near a bathtub, wash bowl, kitchen sink or laundry tub, in a wet basement or near a swimming pool).
- Avoid using a telephone/modem (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.
- Do not use the telephone/modem to report a gas leak in the vicinity of the leak.
- Use only the power cord and batteries indicated in this manual. Do not dispose of batteries in a fire. They may explode. Check with local codes for possible special disposal instructions.
- Keep batteries away from children at all times.
- **Caution:** To reduce the risk of fire, use only No. 26 AWG or larger telecommunication cords (applies to American Standards).
- **Caution:** Lithium batteries can not handle intense pressure, high temperatures or fire. Danger of explosion if replaced incorrectly. Replace batteries with a compatible type (Sony™, CR 2032) as recommended by the manufacturer. Lithium batteries are **hazardous waste** and require proper disposal. Contact the your **Service Center** for additional information on battery disposal.

Chapter 2

Setting Up & Getting Started

INCLUDED WITH YOUR PC

Please check that the contents listed below are supplied with your package and notify us within 14 days of purchase if this is not the case. You MUST provide your PC's serial number when contacting a customer service representative.

Your PC bundle should include the following components:

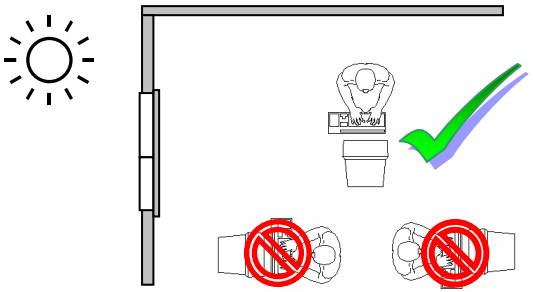
1 x PC and power cord
1 x Windows-compatible keyboard
1 x Mouse
1 x Mouse pad (optional)
1 x Microsoft Windows® Getting Started Manual + Recovery CD (for re-installing the operation system, for factory roll-back refer to page 75)
1 x Application and Support CD (Drivers etc.)
This instruction manual
Warranty Card

SETTING UP

Remember that choosing the proper location for your PC is just as important as connecting it correctly. Place your PC in a stable, vibration-free area. Detailed below are additional guidelines on setting up your PC.

POSITIONING THE MONITOR

Ensure that the monitor is set up in such a way that reflections, glare and light/darkness contrast are avoided (no matter how attractive the look out of the windows might be).



- Hand rest: 2” – 4”
- Top line of screen at eye level or slightly below
- Viewing distance: 20” – 27.5”
- Legroom (vertical): minimum 25.5”
- Legroom (horizontal): minimum 23.6”

WORKING IN COMFORT

➲ Take **regular breaks** from the work at your screen to prevent tenseness and exhaustion.

Sitting in one position for long periods can be uncomfortable. To minimize the potential for physical discomfort or injury, it's important that you maintain proper posture.

- **Overall**: Change your position frequently and tale regular breaks to avoid fatigue.
- **Back**: While sitting at your work surface, make sure your back is supported by the chair's backrest in erect position or angled slightly backwards.
- **Legs**: Your thighs should be horizontal or angled slightly downward. Your lower legs should be near a right angle to your thighs. Your feet should rest flat on the floor. If necessary, use a footrest, but double check that you have your seat height adjusted correctly before getting a footrest.
- **Arms**: Your arms should be relaxed and loose, elbows close to your sides, with forearms and hands approximately parallel to the floor.
- **Wrists**: Your wrists should be as straight as possible while using the keyboard, mouse or trackball. They should not be bent sideways, or more than 10 degrees up or down.
- **Head**: Your head should be upright or tilted slightly forward. Avoid working with your head or trunk twisted.

SET-UP LOCATION

- Keep your PC and all units connected to it away from **moisture**, **dust**, **heat** and **direct sunlight**. Failure to observe these instructions can lead to malfunctions or damage to the PC.
- To prevent damage to your PC from a fall, place and operate the PC and all connected units on a **stable**, **balanced** and **vibration-free surface**.

AMBIENT TEMPERATURE

- The PC can be operated at an ambient temperature of between **+41°** and **+95° F** and at a relative humidity of between **30%** and **70%** (without condensation).
- When powered off, the PC can be stored at temperatures between **–40°** and **+158° F**.

FRONT CONNECTORS

Here is how you can access the (optional) card reader and some further connectors on the front of your PC casing.

Please press this button to slide down the cover.

Push carefully the cover up to hide the card reader and the connectors.

(Diagram the same)

CONNECTING

For a better guidance, open up the left inner page of the cover with the drawings to find the location of the described connections.

➲ **Note:** The devices listed are **not necessarily included** with your PC.

CABLING

Please follow the instructions below in order to correctly connect your PC:

- Arrange cables in such a way that no one can tread on or trip over them.
- **DO NOT place objects on the cables.**
- To avoid damage to your PC, connect your peripherals (e.g., keyboard, mouse and monitor) while your PC is powered **off**. Some devices can be connected while your PC is in use. These devices usually have a USB or IEEE 1394 connector. Please follow the appropriate instructions for each device.
- Keep the PC at least one meter (approximately three feet) away from **high frequency** and **magnetic interference sources** (e.g., televisions, loudspeaker cabinets, mobile telephones, etc.) in order to avoid malfunctions and/or loss of data.
- To avoid EMC issues, make sure that all devices are connected to each cable or that cables not in use are removed from the computer.
- Please note that only **shielded** cables shorter than 3 meters (9.84 ft) should be used for the LPT, COM, USB, IEEE 1394, audio, video and network interfaces with this PC.

- The connection of devices is limited to equipment that complies with EN60950 "Safety of information technology equipment" or EN60065 "Audio, video and similar electronic apparatus. Safety requirements".

> ➲ **Note:** You only need to connect those components to your computer you require. If you do not have the described device (e. g. printer) you may skip the respective item and carry it out later, if necessary.

CONNECTING THE MONITOR

Drawing reference: **W**

- If your graphics card has two blue VGA sockets, you can use either port to connect to the monitor.
- Because of its asymmetric form the plug only fits into the socket in one position.

1. Connect the data cable of the monitor to the blue socket on the graphics card. If necessary, remove the white guard-ring on the monitor plug and ensure that the plug and socket mate together precisely.
2. Hand-tighten the screws on the monitor cable.

> ➲ **CAUTION!** Your PC monitor is preconfigured for a screen resolution of **1024 x 768** pixels and an optimal refresh rate. If your monitor does not support these settings it may become damaged or malfunction during use.

You can change the screen resolution and configuration of your manual as follows (See also your monitor's User Manual):

1. Once you have powered on the PC, press the F8 key (see page 37) to select **Safe Mode**.

> ➲ If you don't hit the F8 key on time, you won't see the start menu which gives you the option to run in **Safe Mode**. Reboot your PC and re-try if you have missed this.

2. Select **Display Properties** to designate the screen resolution for your monitor.

Then you can adjust the „**Display Features**" to your monitor.

CONNECTING A PS/2 KEYBOARD

Drawing reference: **R**

Connect the keyboard to the left, blue PS/2 port.
If you want to connect a USB Keyboard please follow the instructions below.

CONNECTING A USB KEYBOARD

Drawing reference: **E**

Connect the USB keyboard to the USB port.

CONNECTING A PS/2 MOUSE

Drawing reference: **O**

Connect the mouse cable to the right, green PS/2 port.
If you want to connect a USB mouse please follow the instructions below.

CONNECTING A USB MOUSE

Drawing reference: **E**

Connect the USB mouse to the USB port.

CONNECTING PARALLEL DEVICES

Drawing reference: **P**

- Because of its asymmetric form the plug only fits into the socket in one position.

1. If you wish to connect a printer with a parallel (25-pin) connecting cable, connect the printer cable from your printer to the red printer socket **P** on the rear of your PC.
2. Hand-tighten the screws.

If you wish to use a **scanner**, which also connects to the PC via the parallel interface, follow the instructions above. With the PC parallel port in use, the printer can be connected directly to the scanner. You will have use of both devices if they are connected in this manner.

CONNECTING SERIAL DEVICES

Drawing reference: **S**

- Because of its asymmetric form the plug only fits into the socket in one position. Hand-tighten the screws.

1. In order to connect an external modem, card reader or other serial device, connect the serial cable with the turquoise-colored connection socket on the rear of your PC.
2. Hand-tighten the screws.

MODEM/ISDN CONNECTION

Drawing reference: **Z**

If your computer is fitted with a modem or ISDN card, connect the matching end of the communications cable with port **Q** of your PC. The socket is identified as **Line**. Plug the other end into of the communications cable to the telephone wall socket or into the network port provided.

MODEM

The modem cable has an **RJ11** plug, which is plugged into the modem of your PC, and a **TAE** plug, which fits an N-coded, analog telephone socket. For further information please refer to the **Modem** section.

> ➲ **ATTENTION!** Please observe that the modem may only be connected to an **analog** telephone line. The connection of a digital system (ISDN etc.) to an analog telephone line can possibly cause damages to the modem or the connected devices and the telecommunication network.

ISDN

The ISDN cable has **RJ45** plugs at either end. It makes no difference which end is plugged into which socket.

1. Connect the matching plug of the enclosed communication cable to jack **Z** of your computer. Usually the jack is marked with „Line".
2. Then connect the other plug to the telephone or ISDN outlet.

> ➲ **ATTENTION!** Operate the **ISDN** unit only with **digital** telephone systems. This prevents an inadmissible operation possibly causing damages to the unit or the connected devices.

LAN CONNECTION

Drawing reference: **Q**

LAN (network) connecting cables depend on the **network topology**, i.e. whether for optical fiber or Ethernet.

According to the features your PC can be equipped with a network connection, in order to prepare it for network operation. The network cable usually has two **RJ45** plugs so that it is unimportant which plug is connected to which jack.

1. Connect the one plug of the cable to the PC jack.
2. Connect the other plug to the other PC or hub/switch.

For further information refer to chapter „**The Network**" starting at page 59.

CONNECTING DEVICES TO THE GAMING PORT

Drawing reference: **G**

The multi-pin, orange gaming port **G** can be used to connect game controllers (**joystick**, **game-pad**, **steering wheel** etc.) as well as Game-to-MIDI-adapters.

- Because of its asymmetric form the plug only fits into the socket in one position. Hand-tighten the screws.

1. Connect the plug of the respective device with the turquoise colored jack in the rear of your PC.
2. Then tighten the screws of the serial cord by hand.

CONNECTING SPEAKERS/AUDIO OUTPUT

Drawing reference: **H**

Connect your **headphones** or **active speakers** by plugging the cable with the **3.5 mm stereo** jack plug into the green socket (reference **H**).

PCs with Surround sound

If your PC is equipped with it the following connection is required:

1. Connect the front speaker to the green socket (reference **H**).
2. Connect your rear speaker to the **Rear** connector (**H2**).
3. Your center speaker or subwoofer can be connected to the socket **Center/Subwoofer** (**H3**).
4. In order to use the (optional) **digital audio outlet** plug the cinch cable in the jack at location **U** and connect the cable with an audio device with a digital cinch inlet according to the **SPDIF standard**.

Connecting a Sound Source/Audio Input

Drawing reference: **J**

This port is used to accommodate a connecting cable for external audio sources (i.e. stereo system, keyboard/synthesizer).

1. Connect the cable with the **3.5 mm stereo** jack plug to the light-blue colored socket (reference **J**).
2. If you want to record a digital audio source use the audio input **T**. A **SPDIF**-Cinch cable will also be necessary.

Connecting a Microphone

Drawing reference: **I**

1. You can use the pink socket **I** to connect a microphone with a 3.5 mm mono jack plug.
2. Position the microphone in such a way that it does not point directly at the speakers. If you hear feedback, characterized by loud whistling noises, reposition the microphone until the sound stops.

CONNECTING THE PC TO A TELEVISION

Drawing reference: **V** (Cinch), **V2** (S-Video)

If your computer's VGA card is equipped with a TV-Out socket you can establish a connection to a TV.

1. Connect your PC and your television with the cord required for your TV.

CONNECTING A RECORDING SOURCE / VIDEO INLET

Drawing reference: **K** (Cinch), **L** (S-Video)

Your PC may be fitted with a TV-input, depending on the model you selected. You can transfer data from your video camera to your PC and edit the images using this connection.

1. Connect the plug of the cord to the jack (position **U**).

USB/IEEE 1394

- Usually this type of device can be connected while the PC is in use, but it is a good idea to read the manuals of all the devices you connect to your PC before installing them.
- The voltage outputs of your PC for IEEE 1394 (6-pole) as well as for USB are protected by a fuse (limited power source according to EN60950). This ensures that a malfunction of the PC will not damage the peripheral devices connected to the respective jacks.

CONNECTING IEEE 1394 (FIRE WIRE) DEVICES

Drawing reference: **F** (6-pole), **F2** (4-pole)

CONNECTING USB DEVICES

Drawing reference: **E**

You have a choice of several connection sockets.
It does not matter which you use.

1. If you wish to use a **printer**, **scanner** or other device with a USB port, connect the cable to the USB socket on your PC.

For detailed information refer to the chapters USB (starting on page 57) or IEEE-1394 (starting on page 58).

CONNECTING THE POWER SUPPLY

Drawing reference: **X**

Finally, connect the power supply to your PC and monitor, by plugging the power cord into the outlet. Observe the following **safety precautions**:

- The power socket must be in the vicinity of the PC and within reach of the power cables. **DO NOT stretch the power cables tightly to reach a power socket**.
- In order to disconnect your PC from the power source, or set the PC to voltage free, remove the power cord from the socket.
- Use **only** the supplied power cord.
- To provide additional protection against electric shock, power surges, lightning strikes, or other electrical damage to your PC, we recommend the use of a **surge protector**.
- If you are using an **extension cord**, ensure that the cord meets your local safety requirements. If in doubt, ask an electrician.
- The power supply unit has an On/Off switch (**X2**) that can be used to power off the PC. When the switch is **Off** no power is being consumed.

DO NOT Start Your PC Yet!

First, read the following section to find out what you need to know in order to get started.

GETTING STARTED

The software on this PC comes **fully pre-installed**. You do not have to load any of the CD's supplied. With many programs (e.g., telephone-CD's or encyclopedias), however, it is necessary to insert the corresponding CD in order to call up the data which is stored on it. The software will ask you to do this as necessary. Once you have made all the connections and secured the necessary connectors you can turn on the monitor, the other peripherals and finally the PC itself.

Step 1

1. Power on the monitor and your peripheries.
2. Power on your PC by pressing the **Switch** (drawing reference **X2**) to position [**1**].

   Attention! Even with switch set to off mode [**0**], some parts of the PC remain under voltage. To completely disconnect the PC from all power sources, unplug the power cord from the socket.
3. Press **Main Power Switch** (drawing reference **N**) briefly to start loading the operating system.

Explanation:
The PC starts and now goes through a number of phases:

> ➲ Note: Ensure that there is no bootable CD (e.g. the Recovery-CD) in the CD-ROM drive. Such disks will prevent the operating system from loading directly off the hard drive.

The **operating system** is loaded from the hard disk. During the initial set-up, the loading process takes slightly longer than normal to register the operating system and the individual components completely. Your operating system is finished loading when a welcome screen is shown on your display.

Step 2

Follow the instructions on the screen. Dialogue boxes will explain any steps that need to be taken. The greeting procedure will guide you through the following screens and dialogues.

Should you have any questions just click on  .

Mouse Familiarization Program

Explanation:
Use the mouse familiarization program to learn how to operate the mouse.

License Agreement

Explanation:
Please read through the license agreement carefully.
It contains important legal information on the use of your software.
In order to see the full text, use the mouse and the scroll bar to move downwards until you have reached the end of the document. You accept the agreement by clicking on the **I accept the agreement** option field. Only by doing so will you be entitled to use the product under lawful terms and conditions.

Step 3

After the login procedure the Windows® desktop appears on your screen. This can be adjusted so that the screen of your computer looks different. The basic operation, however, is ensured.

SHORT DESCRIPTION OF THE WINDOWS® DESKTOP

(The respective illustration is shown on the next page.)

❶ The Start button

Click once on this button with your left mouse key to call the illustrated start menu.

❷ Program bar

The most commonly used programs are listed here. The operating system recognizes them automatically. If you press the right mouse key on an entry you can determine which entry is kept and which is deleted from the list. The program associated with the entry will **not** be deleted.

❸ All programs

Here you find the entries to every program installed on your PC. Here, too, you can edit entries with the right mouse key.

❹ Information about your PC

Click on this button once with the left mouse key to receive important information about your PC as well as valuable hints and additional assistance.

❺ Switching off

Click on this button with the left mouse key to switch off the PC.

❻ Task bar

Here you receive information and status reports about the operating system and the running programs.

❼ „Icons" on the „Desktop"

Icons are program links used to start the respective programs. A **double click** (press the left mouse key quickly twice) on the symbol starts the application.

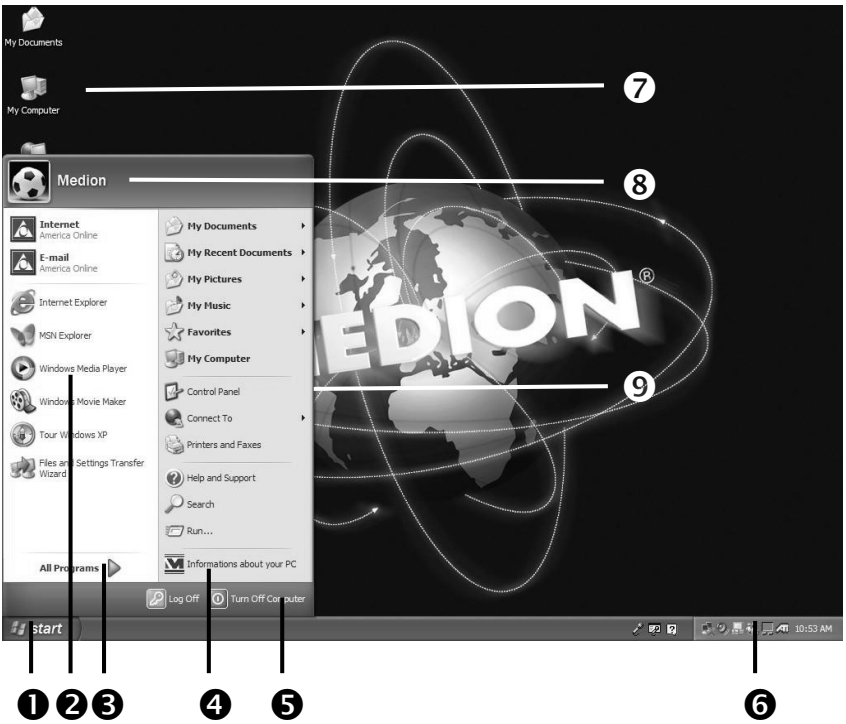
The **Desktop** includes almost the complete screen and is the filing area for those entries or other links you would like to access quickly.

❽ Logged in user

This shows the logged in user. The image is changed by clicking on it.

❾ Control Panel

This is the central control of your computer. Here you are able to configure your computer at will. However, you should read about the implications of possible changes in „Help and Support".

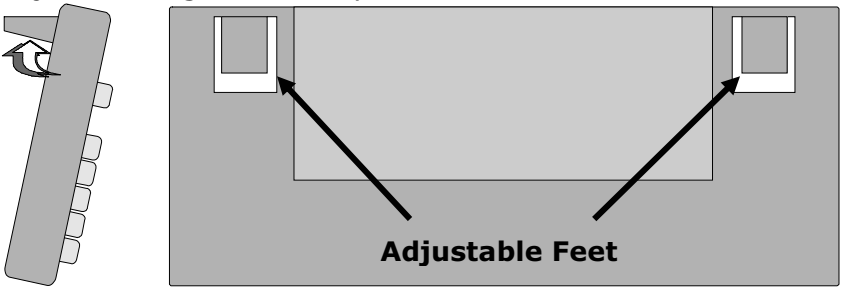


Chapter 3

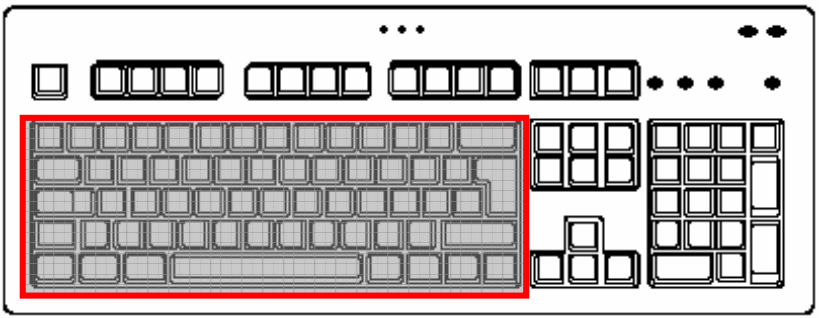
Operation

THE KEYBOARD

This section contains useful information on using the keyboard. All diagrams are schematic.
On the base of the keyboard are two folding feet that let you adjust the angle of the keyboard.

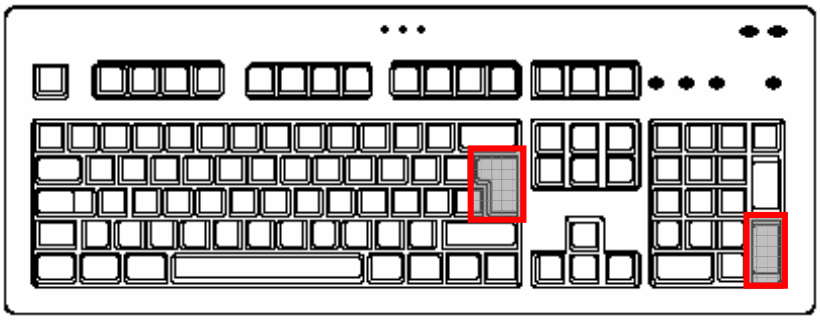


THE QWERTY KEYBOARD



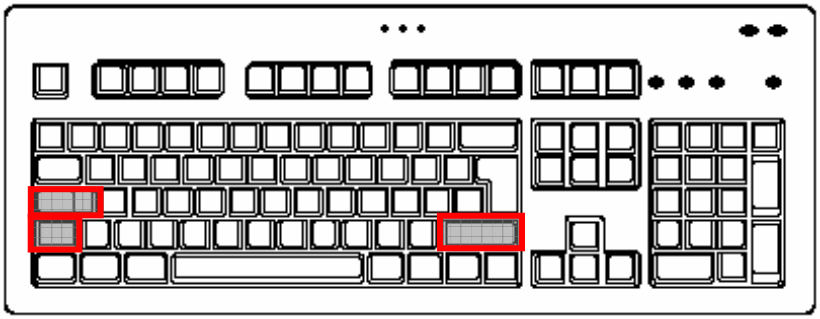
The QWERTY keyboard consists of keys with numeric, alpha-numeric and special characters. The keyboard layout is generally the same as that of a typewriter, with some additional keys added for specific computer functions.

THE RETURN KEY



The **RETURN** (or **ENTER**) key is identified by an arrow pointing to the left. Press **ENTER** to confirm preset or manually entered commands. In application programs, such as a word processing program, **ENTER** moves the cursor to the start of the next line. The **ENTER** key in the number pad has the same function as the **RETURN** key.

THE SHIFT AND CAPS-LOCK KEYS

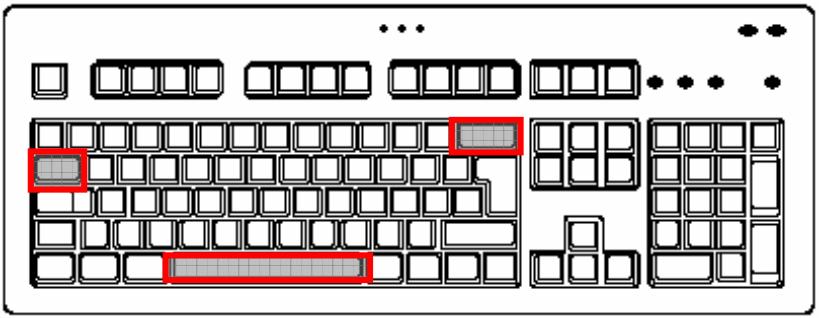


There are two **SHIFT** keys, which are identified by a wide arrow pointing upward. When the **SHIFT** key is pressed, letters entered are shown as capitals. For other keys the characters shown in the top section of the key will be displayed.

The **CAPS-LOCK** key is identified by a wide arrow pointing downward. When this key is pressed it has the same effect as the **SHIFT** key being held down continuously.

When the **CAPS-LOCK** is operational the middle status LED lights. The **CAPS-LOCK** function is deactivated by pressing the **SHIFT** key.

SPACE, TAB AND BACKSPACE KEYS

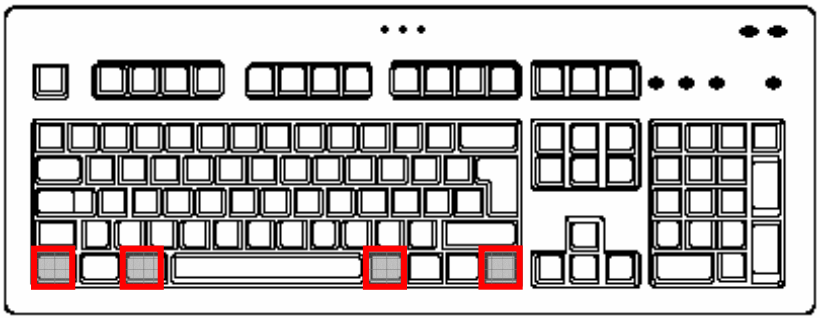


The **BACKSPACE** key is identified by a thin arrow pointing left. When it is pressed the character to the left of the cursor is deleted. If there are any characters to the right of the cursor, then these are moved one space to the left with the cursor.

The **SPACEBAR** is the long, unmarked key on the bottom row of the keyboard. Press it to create a space between characters.

Two opposing arrows identify the Tab key, one on top of the other. In word processing **TAB** normally moves the cursor a certain distance to the right or, when the shift key is pressed simultaneously, to the left. The **TAB** function may, however, vary according to the program used.

THE ALT AND CTRL KEYS

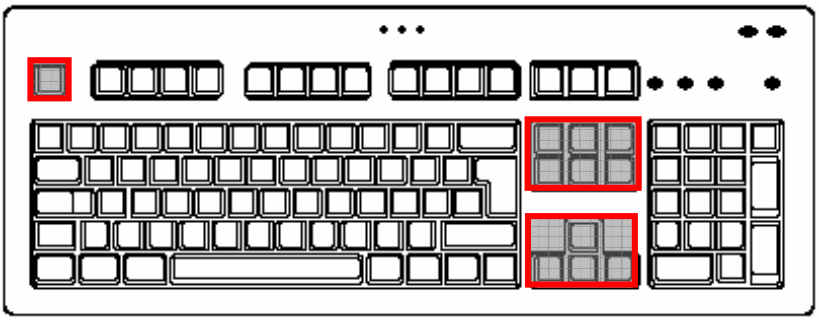


The left **Alt** key performs certain functions in conjunction with other keys. The application program determines these functions. In order to enter a combination of keys that include the **Alt** key, hold the **Alt** key down while pressing the other key. The right **Alt** key operates in a similar way but selects certain special characters. The **Ctrl** key, like the **Alt** key, carries out program functions.

Useful key combinations (software-dependent):

Key Combination	Function and Description
Alt + F4	As a rule ends the program selected or closes the window opened.
Alt + Print screen	Copies the image of the window currently active to the clipboard.
Shift + 2	Generates the @ character required for e-mails (pronounced: at).
Ctrl + Alt + Del	System properties are launched.

Cursor Control Keys



The four **directional keys**, also known as arrow keys, are responsible for controlling the cursor on the screen. The cursor moves in the direction shown on the key.

The **Home** key moves the cursor to the start of a line and the **End** key to the end of the line.

The **Page↓** and **Page↑** keys scroll one page on in the corresponding direction.

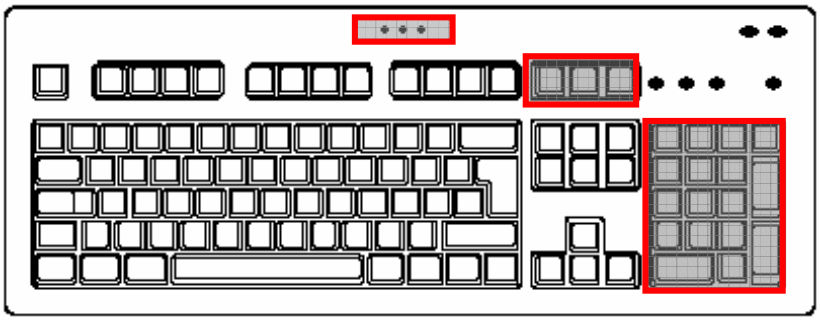
The functions described are dependent upon the application program and may differ from program to program. In combination with the control key (**Ctrl**) the cursor control keys may offer additional functions.

The **Insert** key changes the keyboard to the insert character mode. In insert mode the data are entered at the cursor position and all subsequent characters are shifted to the right. The insert mode remains active until the **Insert** key is pressed again.

The **Delete** key removes the character to the right of the cursor. All other characters to the right of the cursor shift one space to the left.

The **Escape** (**ESC)** is used to leave a program or program-specific menu. Its precise function is dependent upon the software used.

THE NUMBER AND CURSOR PAD



The number pad is used for rapid input of figures and numerical operations. The number pad is not designed for numerical touch-typing.

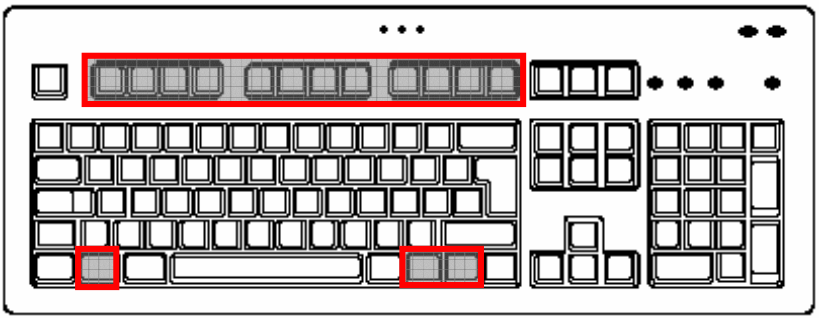
Pressing the **<NUM>** key activates the number pad, illuminating the **NUM LOCK indicator** light. If the **NUM LOCK** indicator is not lit, then the cursor pad is active and the key functions are the same as for the control pad.

The **Print Screen** key allows a printout (hardcopy) of the screen content on a printer (where connected). This does not apply, however, to all characters, and no graphics are output to the printer. In addition this key only works under MS-DOS with the corresponding setting. Under Windows the screen is copied as a graphic to the clipboard.

The **Break** key allows data output on-screen to be halted and restarted by the operation of any other key. This is used in the MS-DOS operating system if you wish to output text from the screen that is longer than one screen page. If the <**Break**> key is operated when the **Ctrl** key is pressed, then commands or programs currently being executed, such as screen output, will be interrupted.

The **Scroll** lock key has no function in the MS-DOS operating system. Some Windows software uses this key to freeze the cursor at a certain position. If the key is pressed once, then the Scroll lock function is activated. The corresponding **Display** lights. The function is switched off by pressing the key again.

THE FUNCTION AND WINDOWS KEYS



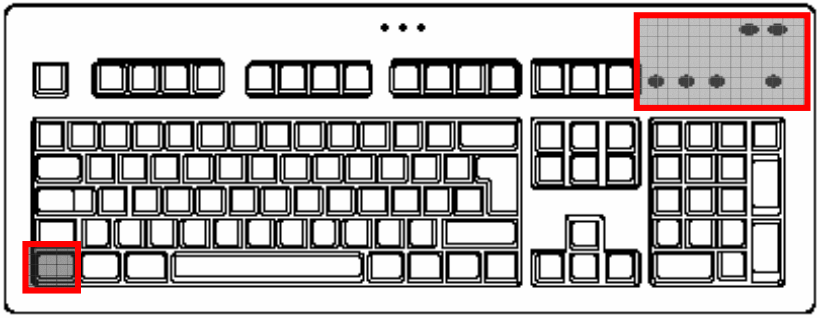
The F1 to F12 keys in the top row of the keyboard are known as ***Function keys***. The function keys have no generally applicable function and are assigned differently by each piece of software. Instructions on the assignment of these keys will be found in the manuals of the respective software programs. Help is usually called up via the F1 key.

The left and right Windows keys (with the Windows banner) are used to call up the Windows opening menu.

Tip: Press this key simultaneously with the **E** key to start **Windows Explorer**; pressing simultaneously with the **Pause** key calls up the **Device Manager**.

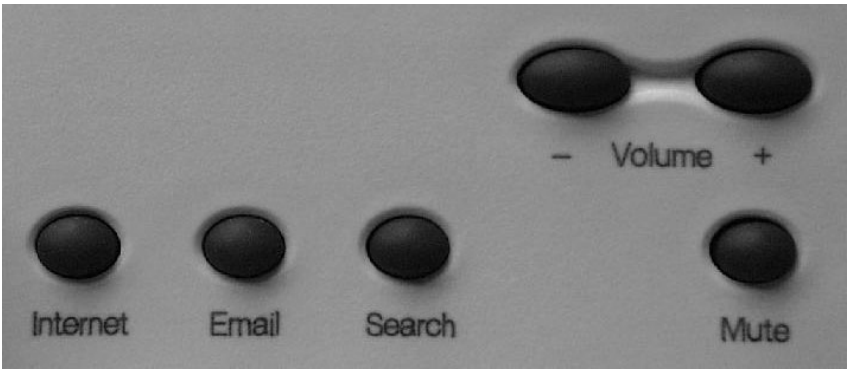
The Applications key corresponds to clicking the right mouse button. In Windows, for example, this key opens the context menu for the work area.

MULTIMEDIA FUNCTIONS



(Diagram the same)

Some keyboards are provided with multimedia keys. These keys have the following functions:



The **Internet** key will launch your Internet browser application.

The **Email** key will launch your Email application.

The **Search** key will launch your predefined search engine.

The **Mute** key will turn off PC sound.

With **Volume +/-** you can adjust the system volume.

THE HARD DRIVE

The hard drive is the main storage medium combining large storage capacity and rapid data access.

The hard drive contains the operating system of the computer, other application programs and backup files. These programs and files are pre-installed on your PC, so you may note that some of the space on your hard drive is already taken.

The Windows operating system cannot use the full capacity of the hard drive, which means that there will be a difference between the capacity that the BIOS displays and what the operating system displays. The operating system of the PC, further application programs and backup files are located on the hard drive and reduce its total capacity.

The hard drive is addressed as drive C, D and E.

> ➲ Never switch off the computer while the busy indicator is lit since this may result in loss of data.

Usually your hard disk is divided into more partitions, but there can also be some minor variations.

Partition	Drive	Type	Capacity (approx.)
Boot	C:	NTFS	60%
Backup	D:	NTFS	30%
Recover	E:	NTFS or FAT32	10%

In your first partition (**Boot**) you will find your operating system, application programs and the users' documents and settings.

The second partition (**Backup**) serves for data security and contains additional drivers and tools.

The third partition (**Recover**) contains the copies of your Windows-installation in the delivery state.

IMPORTANT DIRECTORIES

In the following we listed the most important directories describing their contents.

> ➲ **Attention!** Do not delete or modify these directories or their contents since data could be lost or the functionality of the system could be at risk.

C: The master directory of drive C: includes important files required to start Windows. In the factory setting these files are hidden for safety reasons.

C:\Programs As the name suggests, in this directory programs install the files belonging to the application.

C:\Windows The main directory of Windows. This is where the files of the operating system are saved.

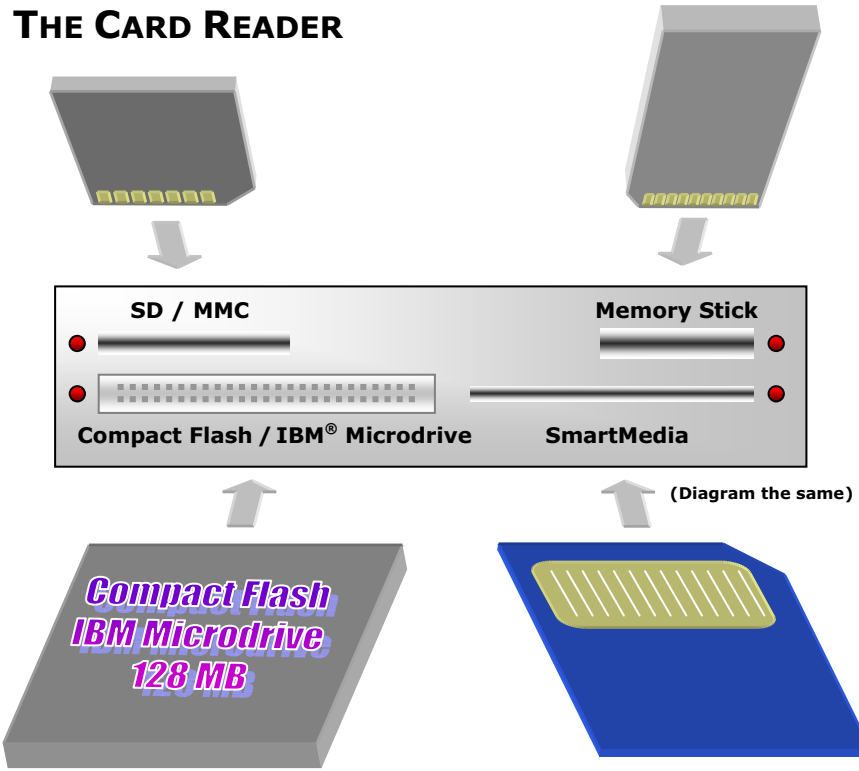
C:\Documents and Settings This folder includes the settings and documents of all the PC users.

D:\Driver This folder includes the drivers required by your computer (pre-installed).

D:\Tools Here you find additional programs and other documentation for your PC.

E:\Recover Here the backup files are located enabling you to recover the factory setting (see page 75).

THE CARD READER



If your PC is provided with a Card Reader (drawing reference: **C**), you can handle different memory card types. The following table refers to the use of the Card Reader:

Slot	Card type	Contacts
Top, left	SD (Secure Digital) MMC (MultiMediaCard)	point to bottom
Top, right	Memory Stick	point to bottom
Bottom, left	CF (Compact Flash) IBM® Microdrive	point to front
Bottom, right	SmartMedia	point to top

If a card is inserted, a free drive will be assigned by Windows® and the LED next to the slot is lit.

THE OPTICAL DRIVE

Depending on the model, your PC will be fitted with a **CD-ROM,** a **CD-RW,** a **DVD-drive** or **a combination** of those drives. The schematics and features for each drive may vary.

> ➲ **NOTE**: This section describes the CD-ROM drive. Operation of a DVD or CD-RW drive is basically the same.

With a CD-ROM drive, data can be read or audio CDs played. Compact disks can store large quantities of data and offer relatively rapid access to data.

LOADING A DISK:

1. Press the eject button (drawing reference, **B**) on the front of the CD-ROM-drive to open the tray.
2. Place the disk on the tray so that it lays flat with the label facing upward.
3. Press the eject button again to close the tray.

> ➲ Many CD's start automatically when they are inserted.

In order to access the CD via Windows Explorer, select the letter corresponding to the drive. When accessing audio or video disks (or audio or video files on conventional CDs) you should use the media playback application pre-installed on the computer. CD-ROM and DVD-ROM drives can play audio CDs, but only the DVD-ROM drive can play DVD audio or video disks.

Depending on the DVD audio CD and the software installed you may also have to open a DVD player program. For further information on the subject DVD refer to page 43.

How to remove a Disc:

1. Press the eject button (drawing reference, **B**) at the front of the CD-ROM drive to open the drawer.
2. Remove the disc and store it in the CD cover in a safe place.

> ➲ While the computer is accessing the CD-ROM drive, the corresponding LED display (❹) is lit. In this case do not try to remove the CD from the drive.

The CD-Rom/DVD drive as Boot D drive

The optical drives can be used for booting the operating system. If the PC does not boot, it is possible that **autostart** is turned off in the BIOS or the CD is not bootable.

DVD Technology

The Compact Disc (CD) was introduced in 1982.

Who could imagined doing without the CD as a storage medium for data, multimedia, computer games and video now? A CD can hold up to 700 MB of data, but that amount is too small to store a high-quality encoding of an entire feature film. The DVD (**D**igital **V**ersatile **Disc**) has the same dimensions as a CD but store more data at a greater density. In some cases, both sides of the DVD can be used to store information. Furthermore, each side can contain two layers of information (dual layer).

Thanks to high data density, the transfer speed is considerably higher than for a CD, so that a DVD drive with 6 times speed can transfer considerably more data than a 6-speed CD drive.

A DVD drive can also read both DVD-ROMs and CD-ROMs, providing the user access to an astounding amount of media.

VARIOUS DVD FORMATS

Format	Side A	Side B	Max. capacity
DVD-5	SL	-	4.7 GB
DVD-9	DL	-	8.5 GB
DVD-10	SL	SL	9.4 GB
DVD-14	DL	SL	13.2 GB
DVD-18	DL	DL	17.0 GB

SL=Single Layer, DL=Dual Layer

DVD-VIDEO

Special characteristics of DVD-Video:

- Up to 8 hours of feature films on a single DVD.
- Up to 8 audio tracks and 32 subtitle tracks.
- Greater picture quality than VHS or SVHS.
- Time-frame navigation and picture stills.
- Selection of different camera angles in some media.
- **Parental Control**, in which certain scenes or an entire film or rating of films can be made accessible only to certain age groups. DVD players can, for example, be set so that scenes or films which have not been approved for younger audiences will not play.

In spite of the high storage capability of the DVD the data must be extremely compressed in order for a complete feature film to be stored.

Regional Playback Information for DVD

The playback of DVD movies includes the decoding of MPEG2 videos, digital AC3 audio data and the deciphering of CSS protected contents.

CSS (sometimes called copy guard) is the name of a data protection program incorporated by the movie industry as an action against illegal copies.

Among the numerous regulations for CSS licensees the most important ones are the country specific playback restrictions.

In order to facilitate the geographically restricted release of movies, DVD titles are released for certain regions.
Copyright laws require the restriction of each DVD movie to a certain region (usually the region, in which it is sold).

DVD movie versions can be published in several regions but the CSS regulations require that each CSS decipherable system may only be used in one region.

➲ **Attention:** The decoding software included with your PC may be changed for regional DVD decoding up to five times, after which the drive will only play DVD movies for the region setting last entered. Changing the region code after that will require factory resetting which is **not** covered by warranty. If resetting is desired, shipping and resetting costs will be billed to the user.

SUBJECTS CONCERNING THE CD-REWRITER

First you receive information on the so-called **blank discs**. These media, requiring a CD rewriter (burner) to produce CDs are called CD recordable (CD-R) or CD rewritable (CD-RW).

RECORDABLE/REWRITEABLE CDS (CD-R/CD-RW)

Normal CDs are pressed from a digital, glass master and then sealed. In the case of blank CDs, the information is burnt onto the CD with the laser of the CD-Rewriter. Therefore these disks are more sensitive than normal CDs. Please avoid the following when using recordable/rewriteable disks – especially blanks that have never before been used:

- radiation by direct sunlight (UVA/UVB)
- scratches and damage to the disk surface
- extreme temperatures

COLORS OF BLANK CDS

Blank CDs have a reflective layer (silver or gold) and a colored synthetic layer that is initially transparent. This synthetic layer is available in green or blue. The laser ray reflected back from the reflective layer hits the synthetic layer and "burns" it, making it impassable for the laser ray. This is how the information is imprinted onto the blank disk.

There is no one answer to the question about which color combination is best as the medium (the blank CD), the writing device (CD-Rewriter) and the reading devices (CD-ROM, hi-fi CD-player, Discman etc.) must harmonize together.
If you have problems reading a particular type of CD, we recommend you try a CD with a different colored synthetic layer.

What Types of CDs Can Be Copied?

CD-ROM, CD-R and CD-RW drives have technical limits. Copying all CDs perfectly is simply not possible. The source CD-ROM drive and source CD both can cause problems in duplication. We therefore recommend that before you permanently copy a CD you select the **Simulation** option. This process does a test run of the reproduction before attempting to burn data onto the CD.

But it is possible to make a damaged copy of a CD without an error message being displayed. This can occur if there is data or other information to protect the CD being copied "hidden" between the tracks of the source CD. Using the software included with your PC, however, can help you make backup copies of virtually any CD type.

The following table contains a list of CD types that can be copied, and some remarks on how to make backup copies.

CD Type	Comments
Audio	If your drive is not a CD-R or a CD-RW drive, a source CD-ROM drive is required that can read digital audio data. Not all drives support the extraction of digital audio data. You can copy audio CDs under the "Disk-at-Once" mode if the source CD-ROM drive is fast enough.
Boot CD	Using the software included in delivery, you can make boot CDs.
Data CD 1/2 ISO 9660 Joliet	If no special formatting or copy-protection methods have been used, you should be able to copy this format without problems.
Extended play CDs	CDs with a capacity of up to 80 Min./700 MB can be generated. Not every drive works with these CDs.

CD Type	Comments
Mixed Mode	Some CDs of this type can be copied without problems while others can not. This is likely because the formatting does not permit copies of CDs to be made or because there are too many deviations from the CD standard.
PSX-CD	Playstation™ games are supported.
UDF (Packet Writing)	Some CD-ROM drives cannot read UDF-CDs. If the CD-ROM drive is able to read Multi-Session CDs, there should not be any problem duplicating disks of this format. This format requires the nero–InCD program.

WHAT DOES ... MEAN?

Boot CD	See ➲El Torito
Buffer Underrun	Due to an empty intermediate buffer, the continuous flow of data to the CD-RW has been interrupted and data has been lost.
CD-Extra	CD-Format which contains audio and data-➲tracks. As the audio data is at the beginning, audio CD players can also play these CDs.
CD-R	Recordable CD
CD-RW	Re-writeable CDs
Disk at once (DAO)	Writing the data in one process. This is important for copying music CDs so they are true to the original.
El Torito	Requires for Boot CDs. If a CD has been formatted with this format, a PC can be booted from this CD if it has the appropriate BIOS support. It does not support long filenames.

Extraction	(Audio-) Taking digital audio data from a CD-ROM drive.
Finalizing	If an audio CD has not been finalized, the CD can only be played back in the CD-Rewriter. Hi-Fi players cannot play back CDs which have not been finalized.
Fixing	In contrast to finalizing which finalizes the entire CD, fixing is restricted to one ➲session.
Hybrid-CD	Format with two data systems: ➲HFS (Apple Mac) and ➲ISO 9660 (other OS')
HFS	Hierarchical File System for Apple MacOS.
Image	Image of a CD or a partition structure.
ISO 9660	CD-ROM file system specified in 1984: Level 1 = 8.3 name convention (ABCD1234.EXT) Level 2 = 8.3 name convention + special signs Level 3 = up to 128 digits
Joliet	➲ISO 9660-Format extended by Microsoft. File names up to 64 digits whereby this extension is only visible under Windows®9X/NT. Other systems only see the ➲ISO 9660-Format.
Lead-In / -Out	Marks the physical start and end of a ➲session. The ➲TOC is saved in the Lead-In area.
Mixed Mode	A CD containing both data and music tracks, whereby the data is contained in the first ➲track and the music is contained in the second track.

MP3	MP3 (MPEG3) is a compression procedure which reduces e.g. a CD music track to approx. one tenth of its original size. Files which have been compressed using this procedure can usually be recognized due to their file extension *.mp3. To play back these files you need a software decoder. A conventional CD player is not capable of playing back these music tracks.
Multi-Read	CD-drives which have this capability are able to read CD-RWs. This is achieved by amplifying the laser unit.
Multi-Session	see ➲session; To access other sessions of a CD click the right hand mouse key on the appropriate CD-ROM drive in the Explorer and select "properties". You can select a session from the file card "data carrier".
On the fly	This write procedure does not create an ➲Image-file. A small project file with file references is used to write the CD. To be able to do this, you need a fast computer.
Packet Writing	The CD is treated like a hard disk. You can save (write) the data from an application directly onto the CD. This only works from Windows®95 onwards. Another pre-condition is that the first ➲track of the CD contains a ➲UDF-driver. This driver is loaded automatically when the CD is inserted into the drive.
PSX-CD	CD for the Sony™ Playstation™. To operate the PSX-CD-backup copies, the Playstation™ must be equipped accordingly.

Sector	Smallest addressable unit of a CD.
Session	A session includes all data which have been burnt onto the CD in one writing process. Only one data ➲track can be written per session, however a number of audio➲tracks can be written. Every CD can have a number of sessions, but these CDs can only be read by devices capable of reading multi-sessions.
TOC	(Table of contents) Directory of ➲tracks.
Track	On a music CD, one track is the equivalent to one song. In the case of data it is a summary of ➲sectors of the same type to record data.
Track at once (TAO)	On multi-session CDs, all tracks are written onto the CD in one working process. The ➲TOC and the connections are written between the data blocks and cause a pause of approx. 2 seconds between the songs.
UDF (Universal Disk Format)	Platform-wide CD file system which is used in the ➲Packet Writing process. The required UDF driver is always loaded from the CD and makes it possible for CD writers and CD-Rewriters to access the CD as it would a hard disk.
Extended play CDs	By reducing the size of the distance between tracks, the capacity of a CD can be extended. You require special CD blanks (80 Min./ 700MB) and a recorder, as well as matching software which supports this. The products included in delivery are capable of these tasks.
Unicode	16-Bit-digit set. The standard ASCII-set of signs is saved in 8 Bit mode and therefore has a limited scope, for example no Arabic letters.

THE GRAPHICS CARD

Your computer is fitted with an A.G.P. high performance graphics card, one of the most technologically advanced and best-equipped VGA cards available.

PERFORMANCE CHARACTERISTICS

- A.G.P. (Accelerated Graphic Port)
- High Performance Acceleration
- Interactive Direct3D Acceleration
- Video Acceleration for DirectDraw/DirectVideo, MPEG-1, MPEG-2, DVD and Indeo® Video Technology
- ACPI Power Management

CURRENT IMAGE PLAYBACK FREQUENCIES

The graphic card can, depending on the set resolution, display vertical image playback frequencies of between 60 Hz and 240 Hz.

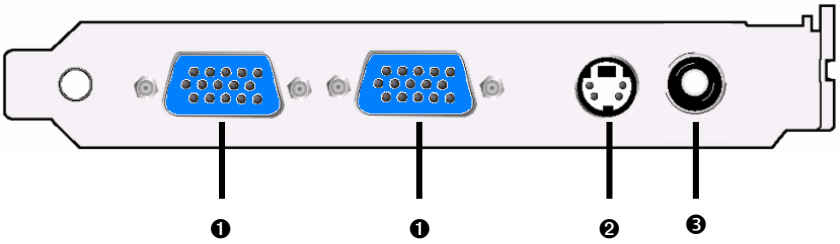
Resolution	Colors	Resolution	Colors
640 x 480	8-, 16-, 32-bit	1600 x 900	8-, 16-, 32-bit
800 x 600	8-, 16-, 32-bit	1600 x 1200	8-, 16-, 32-bit
1024 x 768	8-, 16-, 32-bit	1920 x 1080	8-, 16-, 32-bit
1152 x 864	8-, 16-, 32-bit	1920 x 1200	8-, 16-, 32-bit
1280 x 960	8-, 16-, 32-bit	1920 x 1440	8-, 16-, 32-bit
1280 x 1024	8-, 16-, 32-bit	2048 x 1536	8-, 16-, 32-bit

You can change the graphics setting using the **Display Properties** help program. For optimum image reproduction we recommend an image playback frequency of between 75 Hz and 85 Hz, provided that your monitor can support this. An image playback frequency of less than 70 Hz will generate a flickering image, unless an LCD monitor is being used.

CONNECTING THE PC TO A TELEVISION

> ➲ The graphics card shown here is symbolic. Your graphics card possibly has more or less jacks. For detailed information refer to the online help „**Information about your PC**".

If your graphics card has a TV output, you can transfer the image from your PC to the television set.



(Diagram the same)

❶	VGA connectors
❷	S-video Output
❸	Composite Video Output (Cinch)

> ➲ In order to connect your TV to the PC you will need an S-Video cable or a composite video cable. This cable is **not** included with your computer but may be obtained from an audio/video specialist or dealer. Read the operating instructions for your television set to find out which cable you need.

HOW TO CONNECT THE PC TO A TELEVISION:

> ➲ To use the TV function you must first connect the TV to the graphics card before starting up the PC.

1. Shut down Windows and power off the PC.

2. If your TV set has a composite video port, connect the composite video input on your set with the composite video output on the PC. If your TV set has an S-video port, connect the S-video input on your set with the S-video output on the PC.

Switch on the television to see the PC image on your TV set.

3. Start up the PC and wait for Windows to fully load.
4. In the **Display Properties** program set up the configuration.
5. End configuration by clicking on **OK**.

SYSTEM REQUIREMENTS

If you wish to use the graphics card in another PC, that PC must meet the following requirements. Also, updated drivers for your video card can be download from the Web at www.medion.com.

Processor	From Pentium® II/III Processor or equivalent
Slot	AGP – slot
Monitor	VGA, supporting at least 640 x 480 resolution
CD-ROM	Min. 2-speed (for driver installation)
Operating system	starting from Microsoft Windows®9X/NT 4.0 SP5 and later

THE SOUND CARD

Your PC has an integrated stereo sound card (on-board) with 16-bit and 3D spatial sound effects (3D).

The sound card is compatible with the industry standard **Sound Blaster** and **Microsoft Sound System Version 2.0**.

This guarantees optimal support for all popular programs and games.

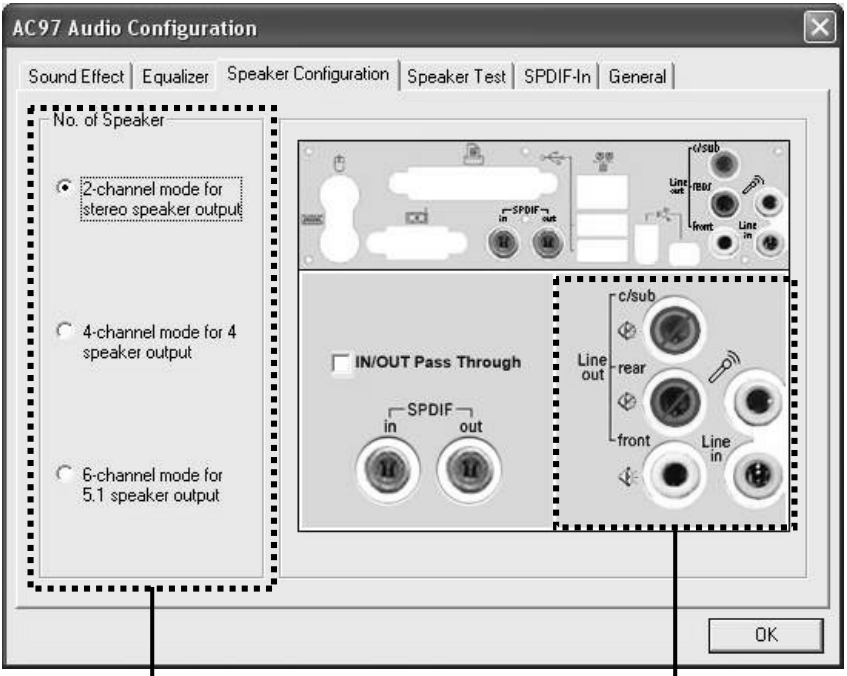
> ➲ **Note**: The speaker/headphones output is designed for active speaker systems or headphones. Passive speakers cannot be used or if they are the quality will be significantly reduced.

If your PC is equipped with a surround sound you can set it with the enclosed software as required.

1. Double click this icon:

The Audio Configuration Utility will be launched. To set-up your sound system according to your speakers click on "**Speaker Configuration**" (see next page).

AUDIO CONFIGURATION



Number of speakers **Sound routing**

According to your selection the outputs are activated or muted. A muted output is shown with this Symbol: ⊘

THE MIDI/GAME PORT

At the rear of your Computer you will find the MIDI-/Game port-Interface. Here you can connect control equipment like a joystick, gamepad or steering wheel. In general these controllers are used in games or simulations to gain realistic and easy control of the program. Steering Wheels can add a realistic feeling to racing games.

MIDI is a standard that enables exchange of data between keyboards and similar equipment for musicians. Data is sent to the respective equipment via DIN cable. The common environment of a MIDI-implication is:

- Keyboard plays passages or single notes in a sequencer program.
- The sequence is edited in the PC and stored as a MIDI-File.
- The PC controls the MIDI-equipment (sound creation of keyboard, Sampler, etc.).

To be able to work with MIDI you will need an adapter cable that is connected to the MIDI/Game port.
This adapter can be purchased in music specialty shops.

USB PORT

- Devices connected directly to the USB bus should not draw more than 500 mA. The voltage output is protected by a fuse (Limited Power Source according to EN 60950). Should the devices need more power than this, it will be necessary to provide a hub (distributor / booster).

On the USB (drawing reference: **E**) it is possible to connect up to 127 devices which correspond to the USB standard (1.1 and 2.0 supported). The data transfer speed for USB 1.1 is 1.5 Mbit or 12 Mbit, depending on the device connected.
USB 2.0 can reach up to 480 Mbit.

IEEE 1394 (FIRE WIRE)

The IEEE 1394 connector, also known as iLink® or Fire Wire, is a serial bus standard used for rapid digital data exchange.

APPLICATION OPTIONS FOR IEEE1394

- Connection of digital devices of the entertainment industry, such as set-top speakers, digital video and camcorder, 'Digital Video Disk' (DVD), television etc.
- Multimedia applications and video processing.
- Input and output devices such as printers, scanners, etc.

TECHNICAL SPECIFICATIONS

- Depending on the application, the maximum data transfer is about 100, 200 or 400 Mbit/s, corresponding to a data throughput of up to 50 MB per second.
- The device can be plugged in or unplugged during operation (hot plugging).
- The standardized cord ('Shielded Twisted Pair' - STP) includes 6 strands. Two lines are live (8V up to 40V, 1.5 A max.) and can be used as an external power supply. The four signal lines transfer data or control information. Some devices do not require a power supply via the cord so that four pole plugs are used.
- The voltage output of the 6-pole IEEE 1394 jack is protected by a fuse (limited power source according to EN60950).

THE NETWORK

If your PC is provided with a Fast Ethernet-Network connector, you can connect it to a network. The following explanation refers to PCs with a network connector. You will find further information about networking in the **Help** section within the **Start** menu.

WHAT IS A NETWORK?

A network means connecting your PC to another or several other PCs. Users can transfer information and data between computers and share resources such as printers, modems and hard disk drives.

Here are some practical examples:

- You can exchange Email and manage appointments in an office.
- Users share a printer in a network and save their data on a central server.
- Share one modem or one ISDN card among computers for Internet access.
- Two or more PCs can be connected to play network games or share data.

WHAT DO YOU NEED FOR NETWORKING?

Some requirements have to be fulfilled if you want to make PCs communicate with one another.

1. The PCs must have the same network cards that support the same network technology. Unless otherwise stated your PC will support the current standard, **Fast Ethernet** (10/100 Mbit).
2. The network cards must be connected to one another. All you need is a Shielded Twisted Pair cable (CAT5) which has an **RJ-45** connector.
   - If you want to connect two PCs you need a **Cross-Link** cable.
   - If more PCs must be connected you need a supplementary distributor (**Hub** or **Switch**) and a **Patch** cable.
3. All connected PCs need a networking **operating system**. That's the case with Windows®.
4. All network PCs must speak the same "language" to understand one another. For this purpose they use protocols.
   - The **network protocol** is determined by the integration of the client server. Loading all PCs with the same client, for example „**Client for Microsoft® Networks**", meets the first prerequisite. Your PC, if equipped with a network connection, has been preconfigured with this server in the factory.
   - A transport protocol is required so data can be transported via the network. Your network PC has **TCP/IP** preconfigured. It is the most common protocol and mandatory for internet access. You need **IPX/SPX** usually only, if access is required to Novell® networks.

5. The setting of protocols, therefore, must be correct. In your network computer, TCP/IP is preconfigured so that the required settings are automatically taken from a so-called **DHCP server**.
   Since usually only large networks are equipped with it, Windows® ME and Windows® XP offer a mechanism automating this function and accepting this setting automatically.
   You can call these settings in the input request with `ipconfig /all`.
6. The correct protocols must be enabled to make shared access possible. This requires the installation of the server „**File and printer release for Microsoft® networks "**. It is also factory installed.
   The release is awarded on the PC where the resource (folders or printers) are located.
   Here the release name or, if necessary, a required password can be determined.
   A successful release is indicated by a stretched out hand below the icon:

7. The released resources can be shown and linked via the network environment.

TROUBLESHOOTING WITHIN THE NETWORK

Why does the network environment not show the releases?

The network environment is delayed in time. Check the release by searching for the respective **computer name**.

Why does an error message appear when I click on the network environment?

The **computer name** must be unique on the network and may not be the same as the **task group**.

It appears that the network boards are unable to communicate. What might be the problem?

Maybe one of the used network boards works with a **different speed** (e. g. 10 instead 100 Mbit) and your network computer is unable to recognize this. If necessary, set the network driver to the compatible speed.

If two PCs should be linked you require a **cross-link cable**, otherwise use a **patch** cable.

In addition, check the **protocols** and the **configuration**.

The data transmission is incorrect or very slow. What might be the problem?

Maybe you have the wrong cable (UTP / CAT3 or lower) or the problem is the proximity of a power cord or another source of interference.

For further hints on troubleshooting refer to the Windows help under „**Network errors** ".

MODEM / ISDN

This chapter is intended for systems equipped with a modem or ISDN jack.

WHAT IS A MODEM?

The term „modem" is an abbreviation of **Mo**dulator/ **DEM**odulator. A modem changes the bit stream of the PC into analog signals which then can also be transmitted via the telephone line (modulation). The modem on the other side reverses the conversion (demodulation). Simplified, a modem converts outgoing data into tone and tone incoming via the telephone line back into data.
The built-in modem is able to receive data according to the ITU standard for V.90 transmissions with up 56 Kbit/s.
Since the power output of modems is restricted due to the regulations of some telecommunication providers, the possible maximum download speed can be restricted. The actual speed may be dependent on the online conditions and other factors.
Data sent from the user to the server are transmitted with 31.2 Kbit/s. Prerequisite for this high speed reception is an analog telephone line compatible with the V.90 standard and a corresponding compatible Internet provider or company-owned host computer.
Contrary to the modem, **ISDN** data are transmitted digitally.

The modem is fitted with an RJ-11 interface, into which a standard telephone lead can be plugged. If your modem is a combo card please make sure that it is used only with the appropriate port.

> ➲ **WARNING!** Use only analog telephone sockets. The modem cannot withstand the voltage levels of digital telephone systems such PABX or lines such as ISDN or Broadband services

SOFTWARE

This section deals with software, differentiating between **BIOS**, **application programs** and **operating systems**.

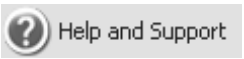
GETTING TO KNOW WINDOWS XP

Windows XP offers different options to understand its operation. We will mention only a few of those options here:

WINDOWS XP HOME EDITION – FIRST STEP

This manual will provide general information about the operating system. We recommend that all beginning users or users of previous versions of Windows read this information.

WINDOWS^{XP} HELP AND SUPPORT



An answer to almost every question can be found in this program. You'll find it in the Start menu or you can launch it by simply pressing the F1 key.

MICROSOFT INTERACTIVE TRAINING – STEP BY STEP

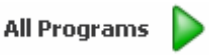
Training is the best way to get skills which helps you to perform a specific task save and effectively.
You'll find it in "**All Programs**", "**Accessories**". It is also linked up in "**Information about your PC**".
This is a very good feature.

WRITING CDS

We describe the writing process with the software **Nero – Burning ROM**. Please follow this instruction only if you use this software.

> ➲ **Note**: A writing process should always take place on its own. Please terminate all running programs (fax reception, screen savers, Power-Management etc.).

STARTING UP NERO - BURNING ROM

1. Click on  and select  .
2. Choose the folder "**ahead Nero**" and click on "**nero - BURNING ROM**".
3. An assistant appears to help you write CDs. Follow the instructions dependent on the CD type.

> ➲ **Note:** If the assistant (wizard) of Nero - BURNING ROM does not appear, you will also get to the dialog window via the icon for „**New arrangement**" (or the key combination **CTRL+N**), where you can start the „**Wizard**". Then click on the button „**Wizard**" on the right side.

WRITING A CD WITH THE HELP OF THE ASSISTANT

It is very simple to write a CD by using the assistant in nero - BURNING ROM. The assistant provides step by step instructions in order to write a simple CD with audio or PC data.

If you are not familiar with CD-R technology yet, the help function (call it up using the F1 function key, or under "*Help*" in the program bar), as well as this manual provides you with important information. In order to be able to help you to write a CD, we have provided a step by step guide for the most common formats. All settings can be left as their standard values.

INSTALLATION OF SOFTWARE

It happens that during installation procedure important files can be changed or even canceled. To avoid eventual problems in using older files after installation, make sure to safeguard your hard disk.

The stoftware included in delivery is **already pre-installed** in the factory.

Note: If your operating system is configured that the installation procedure accepts only signed drivers (default) and software this information screen will appear:

Although the software lacks the digital signature it may work properly. Click on "Tell me why this testing is important" to get detailed information.

Confirm by clicking on "**Continue Anyway**".

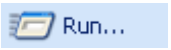
THIS IS HOW TO INSTALL YOUR SOFTWARE:

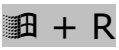
Please follow the instruction of the software vendor. We will describe a typical installation. Once you insert a CD, the installation menu is started automatically.

> ➲ **Note:** If the automatic start does not work, it is likely that the so-called **Autorun** function has been deactivated. Read the respective chapter in Windows Help on how to activate this function.

An example for the manual installation without the autorun function:

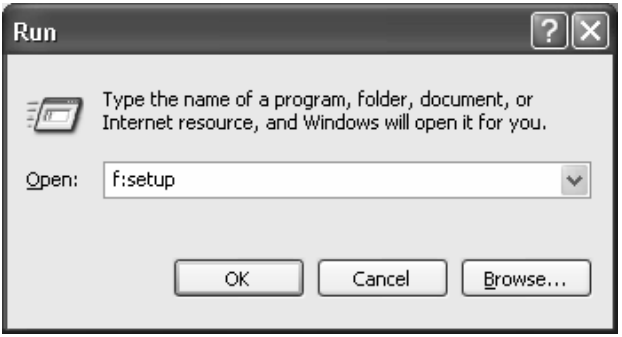
1. Click on 

and select the item 

(Or hit 

to launch the corresponding dialog).

2. Now enter the letter of the CD-ROM drive followed by a colon and the program name setup:



3. Click on "*OK*".

4. Follow the instruction given by the program.

SOFTWARE DEINSTALLATION

In order to remove installed software from your PC, follow the next steps:

1. Click on 

2. Click on 

3. Then select the following program:

Select the respective program, start the deinstallation and follow the instructions on the screen.
If the system becomes unstable due to a certain software or driver, you are able to recover the stability of the system with various methods (see starting on page 74).
Then you do not need to uninstall the driver.

WINDOWS ACTIVATION

Microsoft is committed to the protection of intellectual property rights and the reduction of software piracy. Therefore Windows XP contains software-based product activation technology. Your copy of Windows XP has already been **activated for your PC**.

Product activation is needed if some components of your PC have been replaced or you use a non-authorized BIOS. If necessary you can activate Windows XP as often as requested.

You will probably need to activate Windows XP by telephone even if Internet Activation is available. This is due to the pre-activated SLP version which runs with a special Product-ID. However, activation needs your unique Product ID which can be found on the **Certificate of Authenticity** sticker on your PC housing. When you call, please inform your agent that you are running an OEM-(SLP) version of the software.

PRODUCT ACTIVATION ON YOUR PC

In few cases it may still be required to activate **Windows XP**. If an activation via the **internet** is acknowledged with an error message you should perform the following steps.

1. Please select the **telephone activation** and click until the related screen appears.

2. Now click on **Change Product Key**. A new window appears. Enter the product key. This is located on the **Certificate of Authenticity (COA)**, on the computer's casing.

3. Acknowledge your entry and follow the instructions on the screen. Notify your Microsoft consultant, if necessary, that you have an OEM license.

BIOS SETUP

THE BIOS SETUP PROGRAM

In the BIOS set up (your PC's Basic Configuration) you have a number of parameter settings available for your PC. For example, you can change the operating mode of the interfaces, security features or power management.

The PC is factory pre-set to guarantee optimum operation. Please only modify the parameters if this is absolutely essential and if you are familiar with the configuration possibilities.

EXECUTION OF THE BIOS SETUP

You can only execute the configuration program when starting the system. If the PC has already been started exit Windows® and reboot. Prior to rebooting the PC press the key »Del« and keep it pressed until the message »Entering Setup« appears.

Chapter 4

Customer Service & Self-Help

DATA AND SYSTEM SECURITY

The programs described below are part of your Windows operating system. You will additional information on these programs in the Windows Help file.

DATA SECURITY

Back up data regularly on external media such as a CD-R or CD-RW. Windows offers both a **Backup** program and a **Files and Settings Transfer Wizard**.

You will find both programs in **Accessories/System Tools** within the Start menu. Make a backup disk with all your passwords and the operating system's original configuration.

MAINTENANCE PROGRAMS

You can avoid some hardware and software errors with the help programs such as **Disk Defragmenter** and **Disk Cleanup**. The help program **System Information** can also be helpful since it gives you detailed information about your system configuration. You will find these programs in **Accessories/System Tools** too.

PASSWORD RESET FILE

To protect individual user accounts from complications resulting from lost passwords, users should create a password reset disk and keep it in a safe place. If the user should forget his/her password, the password can be reset with the password reset disk so that the user has access again to his/her local user account.

Windows Help describes how to create a password reset file.

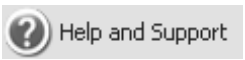
SYSTEM RECOVERY

Windows^{xp} provides a useful function enabling the storage of the so-called **Recovery points**.
The system remembers the current configuration as a snapshot and returns to this, if necessary. The advantage is that an unsuccessful installation can be cancelled.
Recovery points are created automatically by the system, but they can also be set manually.
You can determine and configure yourself the maximum memory taken up by this. You find this program in the program file under **accessories**, **system programs**.
We recommend setting a **recovery point** before installing a new software or driver. If the system does not run stable any longer this enables you usually to return to a workable configuration without deleting newly created documents. In the next paragraph read your options for a repair of an incorrect installation.

CORRECTION

Windows^{xp} includes various functions ensuring that the PC as well as the installed applications and devices work correctly. These functions assist you in solving the problems which might occur by adding, deleting or replacing files required for the functionality of the operating system, the applications and devices. The recovery function or functions you use depend on the type of occurring problem or error. For detailed information refer to the Windows help.
Enter the search word „**Overview over the repair**" in order to evaluate which of the following functions is the safest way to correct your problem:

Backup, Recovery of the driver, Deactivation of the device, System recovery, Last function known to work, Secured mode and system recovery, Recovery console, Windows installation CD.

Please refer to the 

tool.

RESTORING THE FACTORY SETTINGS

Should your system not function correctly, you have the opportunity to recover the original set-up.

LIMITS OF THE RECOVERY

- Changes made to the original configuration (RAS, Desktop or Internet settings) and installed Software will be ignored by this Recovery and will not be reloaded.
- Driver Updates or hardware installed by you will be ignored by this Recovery.
- **Beware!** All data on drive C will be erased. If necessary, backup all required data on drive D.

This recovery will reset your system to its condition at delivery. Printer installations or other additional software must be reinstalled. You will also need to enter the **Product Key** (License Number) again.

> ➲ **Attention!** If you delete the directory **E:\Recover** or the files located there a recovery is no longer possible. For safety reasons you can copy the file **RETTEN.EXE** and all other **RETTEN.00X** files to a CD-Recordable.

CARRYING OUT A RESTORE

1. First, please read the entire **Restore** section of the Windows Help file.
2. Insert the Support-CD and reboot the PC.

> ➲ **Attention!** Do not use the **Product Recovery CD-ROM** for restoration purposes. This disk does not restore the original set-up. You can use it when an individual set up is required.

3. Select the option **Start from CD-ROM**.
4. In the restore menu which now appears, please select **1** and follow the on-screen instructions
5. The PC restarts to its original factory settings.

FAQ – QUESTIONS FREQUENTLY ASKED

When do I have to activate Windows?

Your software has been preactivated in the factory. An activation will only be required, if ...

... several components are replaced by others.

... your installed a new motherboard.

... a different BIOS version has been installed.

... you install the software to another computer.

What is the Windows activation?

Your operating instructions include a chapter about this subject.

How do I perform a data backup?

Use the program Backup for this.

It is important that you follow the operating instructions of this programs.

Make a backup and another backup of selected data to an external medium (CD-R), to familiarize yourself with the technique.

A backup is unsuitable if you are not able to recover the data, the medium (CD-R, CD-RW) is defective or no longer available.

Do I still have to install the enclosed CDs/DVDs?

No. Basically all programs are already preinstalled. The disks are only intended as backup copies.

When is the recovery of the factory setting recommended?

This method should be chosen as the last resort. Read chapter „**System recovery** " on page 74 concerning the alternatives possible.

Why is the boot partition missing when booting from the support/ application CD?

The first partition is formatted with the file system NTFS. Compared to FAT32 this file system offers more security and a more efficient access. However, NTFS partitions can only be read from operating systems supporting this. This is not the case in the aforementioned CD.

TROUBLESHOOTING

LOCALIZE THE CAUSE

Errors can have simple causes, but sometimes they are caused by faulty equipment. We would like to give you some ideas to solve common problems. Should these instructions not lead to success, please feel free to call us.

Check Cables and Connections

Visibly check all cables and connections. Should all lights be off, check whether all equipment is supplied with power.

- Check power points, power cable and all power switches.
- Switch off the PC and check all cable connections. Check the connections to peripherals. Do not exchange cables, even though they may look similar. The polarity in those cables may be different. When it is confirmed that the computer has power and all connections are correct, turn the computer on again.

THE POWER ON SELF TEST (POST)

The Power On Self Test (POST) is executed during each boot process to test the memory, Motherboard, display, keyboard and other components. If the PC does not pass the POST but beeps several times, or if the screen remains blank, call your PC support technician.

> ➲ The PC can only be switched off by pressing the power switch for 4 seconds.

Frequent use of the programs **Disk Defragmenter** and **Disk Cleanup** will help you to avoid problems with your operating system.

ERRORS AND POSSIBLE CAUSES

The monitor is blank:

- Confirm that the system is not in stand-by mode. Press any key on the keyboard to test this out.
- Check that the cable is fully connected.

Wrong Date and Time:

- Double-click the clock on the taskbar and correct the date and time.
- Check that Regional Settings are set to English (British/United Kingdom)

No data can be accessed from the CD-ROM Drive:

- Check whether the CD is inserted correctly.
- Is the CD-ROM (Drive E) displayed in Windows Explorer? If so, test another CD.

The Printer does not work:

- Check the printer cable.
- Do a Printer Self Test.
- Should several pieces of equipment be operating from the same port, check all peripherals and reinstall the drivers.
- If you have access to the Internet, download and install the latest drivers from the manufacturer's Web site.

DRIVER SUPPORT

This PC has been extensively tested in our laboratories with a large number of compatible devices. It fulfils all required standards and complies with the standard "Designed for Windows", which certifies utmost compatibility.
However, often the software drivers for individual components are updated from time to time. This is a regular process provided by the manufactured to mend possible compatibility problems that may occur with components (e.g., programs or hardware) that were not tested at the time of your PC's manufacture. Driver updates and the latest information on your product are available on the Internet.


Visit Medion on the Web at
www.medion.com

ADDITIONAL SUPPORT

If the suggestions in the above section have not solved your problem, please contact the service hotline and we will attempt to help you solve the problem. Before you contact the Technology Center, however, please have the following information available:

- How is your computer configured?
- What additional peripherals do you use?
- What messages, if any, appear on your screen?
- What software were you using when the error occurred?
- What steps have you already undertaken to solve the problem?
- Have you upgraded or removed drivers or hardware?
- Can you manually repeat the problem?
- If you have been given a customer number previously, please quote this.

CLEANING AND CARE

The lifetime of the PC can be extended by taking the following measures:

- Before cleaning, **always remove the power** plug and all connecting cables.
- Clean the PC with a damp, lint-free cloth.

- **Warning!** There are no user-serviceable or user-cleanable parts inside the PC housing.
- **DO NOT use any solvents, corrosive or gaseous cleaning agents.**
- **DO NOT use CD-ROM cleaning disks or similar products that clean the lens of the laser to clean your CD-ROM/CDR-W/DVD-drive.**

RECYCLING AND DISPOSAL

This PC and its packaging was produced mostly from materials which can be disposed of in an environmentally friendly manner and be professionally recycled.
After its use the computer will be taken back and recycled or use will be made of its useful material, if it is returned in a condition corresponding to its intended use.
Parts not usable will be properly disposed of.

➲ **ATTENTION!** There is a lithium battery (Type: Sony™, CR 2032) on the motherboard. No type of battery belongs in the household waste. All are taken back free of charge by the manufacturer, dealer or their representatives for a proper method of utilization or disposal.

Should you have any questions concerning the disposal please contact your dealer or our service.

TRANSPORTING THE PC

Please observe the following guidelines when transporting the PC:

- To avoid damage during transport, store the PC in its original packaging.
- Wait until the PC has reached ambient (room) temperature before connecting it to the power supply. Drastic variations in temperature and humidity can create condensation within the PC and may cause it to **short-circuit**.

UPGRADES AND REPAIRS

- Only a qualified engineer should perform upgrades and repairs to your PC.
- If you do not have the necessary qualifications, go to an appropriate **Service Engineer**. Please contact our **Service Center** if you are experiencing technical problems with your PC.

NOTES FOR SERVICE ENGINEERS

- Before opening the housing, **disconnect the PC from all power sources and remove any connecting cables**. If the PC has not been disconnected from the power outlet before being opened, there is a **danger to life** through electric shock. There is also a risk of damage to the components.
- Internal components of the PC may be damaged by **electrostatic discharge** (ESD). Carry out system upgrades and changes in an **ESD-protected workshop**. If no such workshop is available, wear an **antistatic wrist strap** or touch a highly conductive metal object. Medion can repair damage sustained by inappropriate handling for a fee.
- Use only **original spare parts**.

➲ **Caution:** Lithium batteries can not handle intense pressure, high temperatures or fire. Danger of explosion if replaced incorrectly. Replace batteries with a compatible type as recommended by the manufacturer. Lithium batteries are hazardous waste and require proper disposal. Contact the Service Center for additional information on battery disposal.

Notes on Laser Radiation :

Laser devices of Laser Class 1 to Laser Class 3b may be used in the PC. Where the PC housing remains closed, the device meets the requirements of **Laser Class 1.** By opening the PC housing you will gain access to laser devices of up to Laser Class 3b.

The CD-ROM-/CDRW-/DVD-drives installed contain **no user-serviceable** parts.

When removing and/or opening laser devices, the following guidelines must be observed:

- Only the **manufacturer** should perform repairs to the CD-ROM-/CDRW-/DVD-drives.
- **DO NOT look into the laser beam**, even while wearing optical protection.
- **DO NOT allow yourself to be exposed to the laser beam.** Avoid exposure of the eyes or skin to direct or stray radiation.

Chapter 5

Appendix

Subject **Page**

STANDARDS

This PC meets the requirements of the following standards:

ELECTROMAGNETIC COMPATIBILITY

This PC meets the following requirements for standards of electromagnetic compatibility and electrical safety:

EN 55022	Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement.
EN 55024	Information technology equipment - Immunity characteristics - Limits and methods of measurement.
EN 61000-3-2	Limits - Limits for harmonic current emissions (equipment input current up to and including 16 A per phase).
EN 61000-3-3	Limits - Limitation of voltage fluctuations and flicker in low-voltage supply systems for equipment with a rated current up to 16 A.

- Keep the PC at least one meter (approximately three feet) away from **high frequency** and **magnetic interference sources** (e.g., televisions, loudspeaker cabinets, mobile telephones, etc.) in order to avoid malfunctions and/or loss of data.
- Please note that only **shielded** cables shorter than 3 meters (9.84 ft) should be used for the LPT, COM, USB, IEEE 1394, audio, video and network interfaces with this PC.
- When connecting additional components, please observe the *Guidelines on Electromagnetic Compatibility (EMC)*.

ELECTRICAL SAFETY

EN 60950	Safety of information technology equipment.

- The connection of devices is limited to equipment that complies with EN60950 "Safety of information technology equipment" or EN60065 "Audio, video and similar electronic apparatus. Safety requirements"
- For U.S. / Canadian purposes:
  The PC should only be connected to equipment which complies with UL 60950 / CAN CSA 22.2 No 60950

ERGONOMICS

EN 29241-3	Ergonomic requirements for office work with visual display terminals (VDTs). Visual display requirements.
EN ISO 9241-8	Ergonomic requirements for office work with visual display terminals (VDTs). Requirements for displayed colors.

NOISE EMISSION

ISO 7779 (ISO 9296)	Acoustics. Measurement of airborne noise emitted by information technology and telecommunications equipment.

This PC fulfills the requirements of noise emissions according to ISO 7779 with following values:

Operating Mode	**Max. Sound power level L_{WAd} (B/A) (declared according to ISO 9296)**
Idling	4.8
Operating	5.2
	Max. Sound pressure level L_{pAm} (dB/A) (declared according to ISO 9296)
At bystander position Idling	40
St bystander position Operating	47

SUPPLEMENTARY INFORMATION

This product complies with the requirements of the R&TTE Directive 1999/5/EC and carries the CE-marking accordingly.

CE 0682

FCC COMPLIANCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. Shielded interface cables, if any, must be used in order to comply with the emission limits.

DECLARATION OF CONFORMITY

According to 47CFR, Parts 2 and 15 for Class B Personal Computers:

We: **Medion Aktiengesellschaft**
(Name of the Responsible Party)

Located at: **Gänsemarkt 16 – 18**
D-45127 Essen
Germany
(Adress, City, State, Zip Code)

Fax : 0 201 / 81 081 – 227
(Facsimile Number **for conformity issues only**)

Declare under sole responsibility that the product identified herein, complies with 47CFR Parts 2 and 15 of the FCC rules as a Class B digital device. Each product marketed, is identical to the representative unit tested and found to be compliant with the standards. Records maintained continue to reflect the equipment being produced can be expected to be within the variation accepted, due to quantity production and testing on a statistical basis as required by 47CFR §2.909. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation. The above named party is responsible for ensuring that the equipment complies with the standards of 47CFR §§15.101 to 15.109.

Trade Name: **Medion**

Type or
Model Number: **PC MT6 MED MT xxx (where xxx = 0-999)**

Party Responsible: **MEDION AG**

Executed on (Date), at (Place): **9th of September 2002, Essen**

WARRANTY

PLEASE READ THIS LIMITED WARRANTY CAREFULLY TO UNDERSTAND YOUR RIGHTS AND OBLIGATIONS.

The receipt is considered valid proof of purchase and should be kept in a safe place. This receipt will be required for receiving any warranty service. This warranty is transferable. When transferring ownership to a third party, please provide the receipt and warranty information.

We warrant to the end user that each product, including related software, accessories, media and supplies, shall be free from defects in materials and workmanship for the warranty time from date of purchase. This warranty covers only those defects that arise as a result of normal use of the product. This warranty does not cover any other problems, including problems that arise as a result of improper maintenance or modification; software, accessories, media or supplies not provided or supported by us; or operation outside the manufacturer's specifications.

Any parts in this PC repaired or exchanged by a valid service representative will be covered under the original warranty period. Back up all programs and data before shipping this PC for repair under the warranty agreement. Do not leave any media in the disk drives. Products shipped without accessories will be returned without accessories. Any replacement product or component may be either new or like new, provided that it's functionality is at least equal to that of the product being replaced.

LIMITATION OF WARRANTY

To the extent allowed by local law, no other warranties or are made with respect to this personal computer or the warranty services by any person, including but not limited to us and our suppliers. The express warranty stated above is the only express warranty made to you and is provided in lieu of all other express or implied warranties and conditions (if any) including any created by any other documentation or packaging. For additional warranty information, please refer to enclosed warranty card.

LIMITS OF LIABILITY

To the extent allowed by local law, except for the obligations specifically set forth in this warranty statement, in no event shall we or our third party suppliers are liable for direct, indirect, special, incidental, or consequential damage, whether based on contract or any other legal theory and whether advised of the possibility of such damages. This includes loss or damage of personal data on your PC.

LOCAL LAW

This warranty statement gives you legal rights. You may also have other rights which vary from jurisdiction to jurisdiction. To the extent this warranty statement is inconsistent with local law, certain disclaimers and limitations of this statement may not apply to the customer.

MAKING COPIES OF THIS MANUAL

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INDEX (CONTINUED)